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MIMOSA PUDICA FLOWER (MAKAHIYA) TEA AS ANTIOXIDANT: A FEASIBILITY STUDY

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ABSTRACT

Antioxidants are compounds found in various foods and supplements that play a crucial role in protecting the body against damage caused by harmful molecules known as free radicals. These free radicals are highly reactive molecules that can cause oxidative stress, leading to damage to cells, proteins, and DNA, which, over time, may contribute to various health problems such as aging, cancer, and heart disease. Antioxidants work by neutralizing free radicals, thereby preventing or reducing the damage they can cause to the body's cells. This experimental study focuses on assessing the potential use of Mimosa pudica flower as an antioxidant. The methodology involves formulating a tea out of the flowers and observing its characteristics, particularly focusing on changes in color and pH level during different steeping duration. According to the study's findings, steeping duration influenced the color of the tea, with longer steeping duration resulting in darker hues. But surprisingly, despite the change of tea color at

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different steeping time, the pH level remained the same. Given that existing studies found that lower pH level exhibited higher antioxidant capacity, due to the results of a pH level of 7, the researchers concluded that the feasibility of using Mimosa pudica flowers as an antioxidant could be lower to none. This study underscores the importance of pH levels in assessing antioxidant potential, as deviations from expected patterns may indicate limitations in the antioxidant properties of a substance. While the findings do not definitively rule out the utility of Mimosa pudica flowers as antioxidants, the researchers suggest a need for further investigation to elucidate their efficacy fully. In conclusion, this study sheds light on the complexities of antioxidant evaluation and highlights the importance of comprehensive analysis in determining the suitability of natural compounds for therapeutic purposes.